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APPLICANT : NIPPON STEEL CORP;

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TITLE : INLINE SOFTENING TREATMENT FOR AIR-HARDENING SEAMLESS STEEL TUBE

ABSTRACT : PURPOSE: To produce a soft air-hardening seamless steel tube by performing heating by means of specific temp. treatment in the course of tube rolling, exerting tube rolling, and regulating hardness to a specific value by means of natural cooling.

CONSTITUTION: In the course of tube rolling for an air-hardening seamless steel tube, temp. is temporarily lowered down to a temp. not higher than the martensitic transformation point and then heating is performed up to a temp. between 650°C and (Ac_3 transformation point -30°C) again to perform tube rolling to the desired product dimensions. Successively, natural cooling is performed to regulate the hardness of the resulting steel tube to ≤ 400 Vickers hardness. By this method, the soft air-hardening seamless steel tube free from deterioration in productivity and economical efficiency and capable of cutting in an as-rolled state can be easily produced by means of a manufacturing process line.

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